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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/648,771

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Kimmo Hamynen

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EXAMINER

WON, MICHAEL YOUNG

ART UNIT

PAPER NUMBER

2155

DATE MAILED: 01/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/648,771	HAMYNEN, KIMMO	
	Examiner	Art Unit	
	Michael Y Won	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/25/03 & 2/6/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-41 have been examined and are pending with this action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 5-7, 9-15, 17-23, 26-31, 33-37, 39, and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Dymetman et al. (US 6,330,976 B1).

INDEPENDENT:

As per claim 1, Dymetman teaches a method of utilizing a written universal resource locator (URL) to communicate with the Internet, comprising the steps of: using a camera unit to acquire (see Fig.8; col.8, lines 45-50; and col.9, lines 10-15) a raw visual light image (see col.7, lines 36-37: "image") that contains the written URL (see col.5, lines 10-29: "as would be the case for an action identifier that is a URL"; col.5, lines 40-41; col.12, lines 60-65; and col.26, lines 21-39), converting the raw visual light image to an electronic image (see col.15, lines 23-24), locating glyphs of at least one

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particular standardized set of URL characters in the electronic image (see Fig.5A & Fig.5B; col.8, lines 55-62; and col.13, lines 37-44), extracting an extractable URL from the electronic image (see col.16, lines 31-33), sending the extractable URL in a request signal to a web server in order to access an Internet site (see col.16, lines 33-36), processing a reply from the web server (see col.9, line 64-col.10, line 2 and col.18, lines 51-54), presenting the Internet site (see col.9, line 2-8 and col.18, lines 54-55).

As per claim 15, Dymetman teaches a system for utilizing a written universal resource locator (URL) to communicate with the Internet, comprising: a camera (see Fig.8; col.8, lines 45-50; and col.9, lines 10-15), responsive to a raw visual light image (see col.7, lines 36-37: "image") containing the written URL (see col.5, lines 10-29: "as would be the case for an action identifier that is a URL"; col.5, lines 40-41; col.12, lines 60-65; and col.26, lines 21-39), for providing an electronic image signal indicative of the raw visual light image (see Fig.8; col.8, lines 45-50; and col.9, lines 10-15); URL extraction means, responsive to the electronic image signal (see col.16, lines 31-33), for finding glyphs of at least one particular standardized set of URL characters in the electronic image (see Fig.5A & Fig.5B; col.8, lines 55-62; and col.13, lines 37-44), and also for providing a URL request signal indicative of an extractable URL that is extracted from the electronic image signal (see col.24, lines 2-12); an Internet interface, responsive to the URL request signal, for providing a web site signal indicative of an internet site accessed via the Internet (see col.25, lines 3-5); and a display, responsive to the web site signal, for presenting the Internet site (see col.9, line 2-8 and col.18, lines 54-55).

As per claim 23, Dymetman teaches a mobile device for utilizing a written universal resource locator (URL) to communicate with the Internet, the mobile device comprising: initiation means for sending an instruction to obtain a raw visual light image (see col.7, lines 36-37: "image") which includes glyphs of at least one particular standardized set of URL characters (see Fig.5A & Fig.5B; col.8, lines 55-62; and col.13, lines 37-44), a camera (see Fig.8; col.8, lines 45-50; and col.9, lines 10-15), responsive to the instruction from the initiation means, for receiving the raw visual light image (see col.7, lines 36-37: "image") and for providing an electronic image signal indicative of the raw visual light image (see col.15, lines 23-24); a display for presenting the web site, the display being responsive to a web site signal indicative of an Internet site (see col.9, line 2-8 and col.18, lines 54-55) corresponding to an extractable URL that has been extracted from the raw visual light image (see col.16, lines 31-33); and an internet interface, for providing the web site signal to the display after communicating with the Internet (see col.25, lines 3-5); wherein the mobile device (see col.16, lines 9-10 and col.24, line 61) is for processing the electronic image signal provided by the camera, in order to obtain the web site signal from the internet interface (see col.15, line 59 to col.16, line 10).

As per claim 36, Dymetman teaches a computer-readable medium, for use with a mobile device, encoded with a software data structure comprising: a URL locator software module, for locating standardized URL glyphs (see Fig.5A & Fig.5B; col.8, lines 55-62; and col.13, lines 37-44) in an electronic image (see col.7, lines 36-37: "image"); a scan and text recognition software module for extracting an extractable URL

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from the electronic image (see col.1, lines 30-35 and col.14, lines 31-32); a browser-based user interface module (see col.25, lines 3-5), for allowing the user to decide whether to send the extractable URL to the internet in order to immediately access a web site (see col.2, line 12-15; col.4, lines 63-66; col.16, lines 44-46; and col.29, lines 12-15), or alternatively bookmark the extractable URL (see col.35, lines 7-11).

DEPENDENT:

As per claims 3 and 17, Dymetman further teaches wherein the camera is a video or still camera for capturing arbitrary scenes (see col.17, lines 21-30).

As per claim 5, Dymetman further teaches wherein the step of extracting the URL is performed at least partly by a URL extraction means that receives the electronic image via a telecommunications network (see col.2, lines 24-35 and col.4, lines 35-37).

As per claims 6, 21, and 30, Dymetman teaches of further comprising the step of manually amending the extractable URL if the extractable URL is different from the written URL (see col.17, lines 31-32).

As per claim 7, Dymetman teaches of further comprising the steps of: selecting a portion of the electronic image containing the written URL, if the extractable URL is different from the written URL, extracting a more accurate URL from the portion of the electronic image (see col.17, lines 31-32), sending the more accurate URL to a corresponding web server, processing a further reply from the corresponding web server, displaying a desired web site accessed via the corresponding web server in response to the more accurate URL (see claim 1 rejection above).

As per claim 9, Dymetman teaches of further comprising the step of book marking the extractable URL by creating a bookmark, and wherein the request signal to the web server is sent when the bookmark is retrieved (see col.35, lines 7-11).

As per claim 10, Dymetman teaches of further comprising the step of performing the extracting, sending, and processing steps again, if the reply indicated an invalid URL (implicit: see col.17, lines 31-32).

As per claim 11, Dymetman further teaches wherein the performing step is performed by a different computer having a greater capacity (see col.10, lines 2-8: "server" and claim 10 rejection above).

As per claim 12, Dymetman further teaches wherein the extracting step also yields at least one alternate URL that will be tried if the extractable URL turns out to be invalid (see col.4, lines 31-34; col.11, lines 44-45; col.17, lines 62-65; and col.21, lines 23-26).

As per claim 13, Dymetman further teaches wherein the step of selecting the portion of the electronic image is performed manually using stylus (see col.28, lines 19-21) or zoom functionality.

As per claim 14, Dymetman further teaches wherein the telecommunications network comprises the Internet (see col.34, lines 17-19).

As per claims 18 and 26, Dymetman further teaches wherein the at least one particular set of characters comprises the character string www, and wherein the certain character is the letter "o" (see col.24, lines 10-11).

As per claim 19, Dymetman further teaches wherein the camera and the display are parts of a mobile device, and at least part of the URL extraction means is communicatively connected to the mobile device via a telecommunications network (see col.15, line 59-col.16, line 10 and col.24, line 61).

As per claim 20, Dymetman further teaches wherein the camera, at least part of the URL extraction means, the Internet interface, and the display are parts of at least one mobile device (see col.9, lines 10-15; col.16, lines 7-10; and col.24, lines 60-64).

As per claim 22, Dymetman teaches of further comprising an image selection means, responsive to user input, for providing an image portion signal to the URL extraction means, the image portion signal being indicative of a portion of the electronic image where the written URL is depicted (see Fig.7 and Fig.10; and col.17, lines 20-21 & 29-30).

As per claim 27, Dymetman teaches of further comprising a URL extraction means that is responsive to the electronic image signal provided by the camera, the URL extraction means being for finding the at least one particular set of glyphs, for processing the electronic image signal, and for providing a URL request signal to the internet interface; wherein the internet interface is responsive to the URL request signal, and is for providing the web site signal after communicating with the internet (see claim 1 rejection above).

As per claim 28, Dymetman further teaches wherein the Internet interface is responsive to the electronic image signal, and is for processing the electronic image

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signal by conveying the electronic image signal to an Internet extraction site (see col.34, lines 7-16).

As per claim 29, Dymetman further teaches wherein the initiation means gives the user an option to make a bookmark for the extractable URL, and wherein the mobile device is for obtaining the web site signal when the bookmark is retrieved (see col.35, lines 7-11).

As per claim 31, Dymetman teaches of further comprising an image selection means, responsive to user input and responsive to the electronic image signal, for providing an image portion signal indicative of a portion of the electronic image where the written URL is depicted, and wherein the mobile device is for processing the image portion signal to obtain the web site signal from the Internet interface (see col.2, line 12-15; col.4, lines 63-66; col.16, lines 44-46; and col.29, lines 12-15).

As per claim 33, Dymetman further teaches wherein the image selection means includes a stylus for selecting the portion of the electronic image where the written URL is depicted (see col.28, lines 19-21).

As per claim 34, Dymetman further teaches wherein the extractable URL is different from the written URL if the web site has not been found using the extractable URL (inherent).

As per claim 35, Dymetman further teaches of a computer-readable medium or media, encoded with a data structure for performing the method of claim 1 (see col.3, lines 39-43: "articles of manufacture").

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As per claim 37, Dymetman further teaches wherein the URL locator software module is also for searching an electronic image to find glyphs of at least one particular set of characters (see claim 1 rejection above).

As per claim 39, Dymetman further teaches wherein the software data structure includes code for seeking URL extraction assistance from a user or from another computer if necessary (implicit: col.17, lines 31-32).

As per claim 41, Dymetman further teaches wherein the URL extraction assistance includes the user manually correcting the extractable URL (implicit: see col.2, line 12-15; col.4, lines 63-66; col.16, lines 44-46; and col.29, lines 12-15).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2, 4, 8, 16, 24, 25, 32, 38, and 40 rejected under 35 U.S.C. 103(a) as being unpatentable over Dymetman et al. (US 6,330,976 B1) in view of Clark, P. et al. "Combining Statistical Measures to Find Image Text Regions", University of Bristol, Department of Computer Science, September 2000, pp.450-453.

As per claims 2, 16, and 24, Dymetman does not explicitly teach of further comprising the steps of: approximating an angle between a plane of a glyph of a certain

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character and a plane perpendicular to a line of sight from the camera; and compensating for said angle before attempting extraction of remaining parts of the extractable URL. Clark teaches a step of: approximating an angle between a plane of a glyph of a certain character and a plane perpendicular to a line of sight from the camera; and compensating for said angle before attempting extraction of remaining parts of the extractable URL (see Fig.1, 3, & 4; and pg.450, Abstract and Introduction: "align it correctly to obtain a fronto-parallel view").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Clark within the system of Dymetman by implementing approximating an angle between a plane of a glyph of a certain character and a plane perpendicular to a line of sight from the camera within the method of utilizing a written universal resource locator (URL) to communicate with the Internet because Clarke teaches on page 450, Introduction "automatic segmentation and recognition of text in arbitrary scene" viewed by a camera is necessary to find image text regions and one of ordinary skill in the art understands that cameras can take three dimensional pictures from plurality of angles. Furthermore, Dymetman teaches that Data Glyphs or other markings can be used, but for "visually nonobstructive markings, it is desirable to have markings for which shape of a pattern or collection of markings appears uniform to the eye" (see col.33, lines 61-67).

As per claim 4, Dymetman further teaches wherein the at least one particular set of characters comprises the character string www, and wherein the certain character is the letter "o" (see claim 18 and 26 rejection above).

As per claim 8, Dymetman teaches of further including an initial step of instructing the camera unit to go to the Internet (see col.10, lines 2-8) via the raw visual light image (see claim 1 rejection above). Although Dymetman teaches of an extractable URL, he does not explicitly teach of including a zooming step before the extracting step so that the camera will automatically zoom in on the extractable URL and thus improve the electronic image. Clark teaches of including a zooming step before the extracting step so that the camera will automatically zoom in and thus improve the electronic image (see pg.450, Introduction, 2nd column, last paragraph: "We have directed...").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Clark within the system of Dymetman by implementing including a zooming step before the extracting step so that the camera will automatically zoom in and thus improve the electronic image within the method of utilizing a written universal resource locator (URL) to communicate with the Internet because Clarke teaches in the same paragraph that such step overcomes the limitation of "when the text is too small to read".

As per claim 25, Clark further teaches wherein the camera is a video or still camera for capturing arbitrary scenes, and wherein the camera comprises a zoom mechanism for automatically zooming in on the extractable URL to improve the electronic image signal (see claim 3 and 8 rejection above).

As per claim 32, Clark further teaches wherein the image selection means includes a zoom function (see claim 8 rejection above).

As per claim 38, Dymetman further teaches wherein the scan and text recognition software module is also for finding a glyph of a certain character after locating the at least one particular set of characters (see Fig.5A & Fig.5B; col.8, lines 55-62; and col.13, lines 37-44), however, he does not explicitly teach for using the glyph of the certain character to approximate an angle between a plane of said glyph of the certain character and a plane perpendicular to a line of sight from the camera, and compensating for said angle before attempting recognition of remaining parts of the extractable URL. Clark teaches of using the glyph of the certain character to approximate an angle between a plane of said glyph of the certain character and a plane perpendicular to a line of sight from the camera, and compensating for said angle before attempting recognition of remaining parts of the extractable URL (see claim 2, 16, and 24 rejection above).

As per claim 40, Dymetman further teaches wherein the URL extraction assistance is necessary (subjective) if the access to the web site has been unsuccessful one or two times (see claim 39 and 41 rejection above).

Conclusion

4. Claims 1-41 have been rejected.

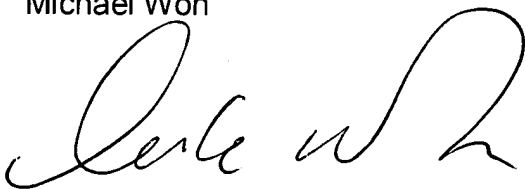
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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Y Won whose telephone number is 571-272-3993. The examiner can normally be reached on M-Th: 7AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Won



January 26, 2005



HOSAIN ALAM
SUPERVISORY PATENT EXAMINER